

Date: Thursday, 21/08/2008 5:12:19 PM
 User: Julie Lecocq

Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services	Drawing Name	: 350 SADDLE
Job Number	: 41555		
Estimate Number	: 12451		
P.O. Number	:	Part Number	: D35001
This Issue	: 21/08/2008 S.O. No. :	Drawing Number	: D3500 REV C
Prsht Rev.	: NC	Project Number	: N/A
First Issue	: / / Type : MACHINED PARTS	Drawing Revision	: C
Previous Run	: 36016	Material	:
Written By	:	Due Date	: 30/09/2008 Qty: 12 Um: Each
Checked & Approved By	: <u>JLD 08.8.22</u>		
Comment	: Est Rev:A New Issue 06-06-15 JLM		

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	D6102013	Saddle Billet
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Comment: Qty.: 1.0000 Each(s)/Unit Total: 12.0000 Each(s)
 6061-T6 7.0x6.5x2.0 ~~B35951X5~~
 350 Saddle Billet
 Batch: B35605X10

PTD

2.0	HAAS1	HAAS CNC VERTICAL MACHINING #1
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Comment: HAAS CNC VERTICAL MACHINING #1
 Program Batch No. 41555 Double check by: PL

- 1-Machine Step No 1 per Folio FA641 and inspect per attached Dimension Sheets
- 2-Machine Step No 2 per Folio FA641 and inspect per attached Dimension Sheets
- 3-Machine Step No 3 per Folio FA641 and inspect per attached Dimension Sheets
- 4-Deburr
- 5-Tumble to remove sharp edges.

14

DIP 08/09/18 J.L

3.0	QC2	INSPECT PARTS AS THEY COME OFF MACHINE
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Comment: INSPECT PARTS AS THEY COME OFF MACHINE

DIP 08/09/18 J.L

14

4.0	QC8	SECOND CHECK
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Comment: SECOND CHECK

mk 08/09/19

14

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D3500-1 PAR #: 08-024 Fault Category: Prod / Machined Parts NCR: Yes No DQA: DD Date: 08/05/25
 Resolution: _____ Disposition: _____ QA: N/C Closed: DD Date: 08/02/25

NCR: <u>41555</u>		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
<u>08/09/17</u>	<u>2</u>	- PAR 08-024 - Saddle was ran at 0 and the 1.585 ± .010 bore came out 1.598	<u>GP</u> <u>08.09.18</u> <u>pc</u> <u>QSI 042</u>	SCRAP PART REF DS EMAIL	<u>J.L</u> <u>08/09/17</u>	<u>S</u> <u>08/09/02</u>	<u>GP</u> <u>08.09.18</u> <u>pc</u> <u>QSI 042</u>	<u>S</u> <u>08/09/02</u>
		Rt Part ran with out any oil nets.						

NOTE: Date & initial all entries

Date: Thursday, 21/08/2008 5:12:19 PM
User: Julie Lecocq

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: 350 SADDLE

Job Number: 41555

Part Number: D35001

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



(14X)

Comment: HAND FINISHING RESOURCE #1

Acid etch and Alodine as per QSI 005 4.1

M-1

08/09/22

6.0

POWDER COATING

POWDER COATING



(14X)

Comment: POWDER COATING

Powder Coat White Gloss (Ref: 4.3.5.1) as per QSI 005 4.3

START TIME:

OVEN TEMPERATURE:

FINISH TIME:

1:45
320°
2:15

M-1

08/09/23

7.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT

08-09-23

(14X)

8.0

PACKAGING 1

PACKAGING RESOURCE #1



(14X)

Comment: PACKAGING RESOURCE #1

Identify and Stock

Location:

440

8/9/23

Scp

9.0

QC21

FINAL INSPECTION/W/O RELEASE



08/09/24

Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



u 08.09.24

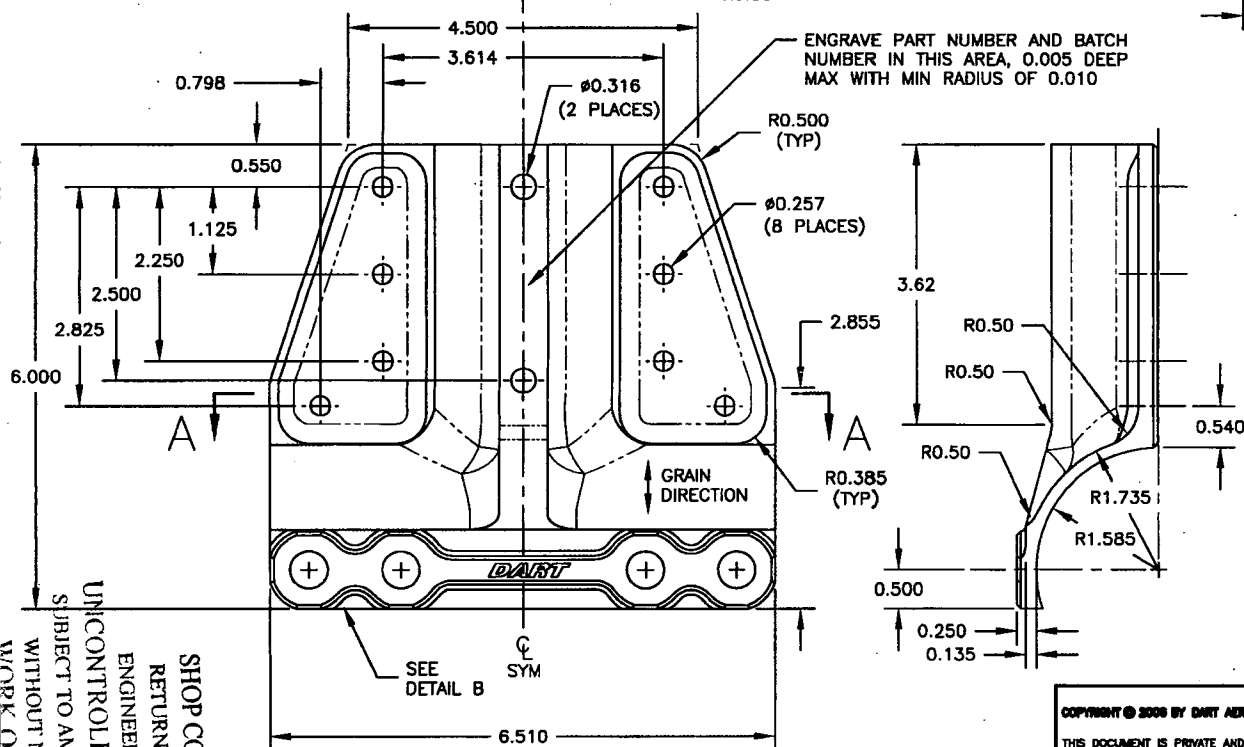
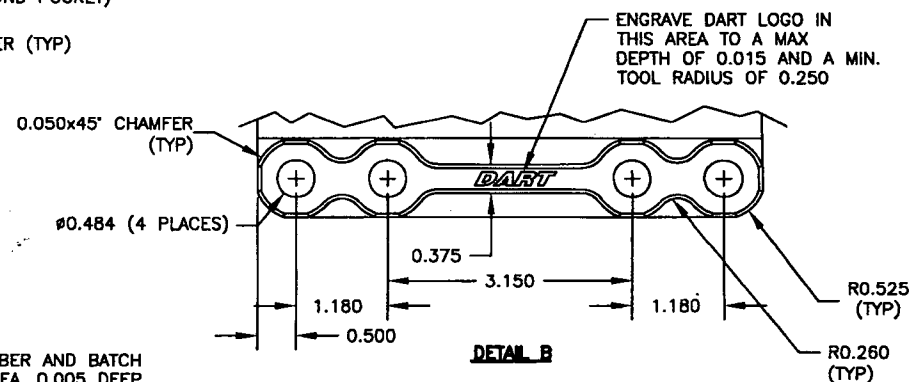
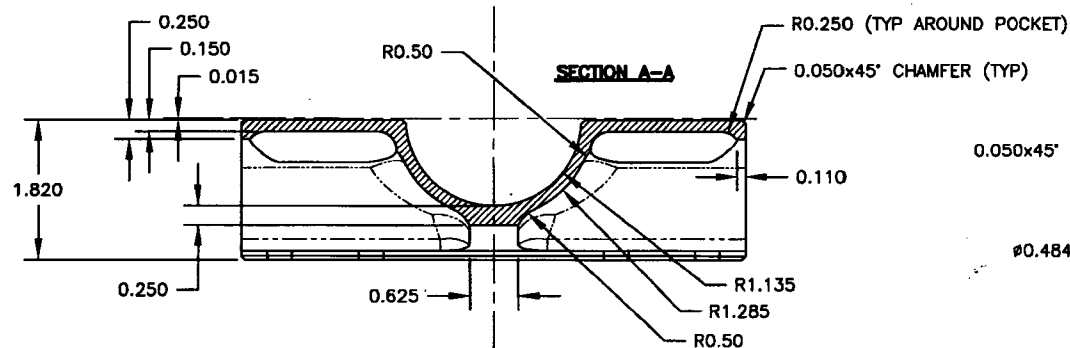
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



D3500-1 SADDLE

- 1) MATERIAL: 6061-T6/T651 (QQ-A-200/8 OR QQ-A-250/11)
(MAKE FROM D6102-013 SADDLE BILLET, 6061)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1.
POWDER COAT GLOSS WHITE (REF 4.3.5.1) PER
DART QSI 005 4.3
- 3) BREAK ALL SHARP EDGES 0.010 TO 0.020
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) ALL DIMENSIONS ARE IN INCHES

RELEASED

06-68-15 #

C	06.06.30	MAT'L NOW 6061-T6/T651
B	06.05.29	CHANGE DIMS; MAT'L NOW 7075-T7351
A	06.04.18	NEW ISSUE
DESIGN	GP	DRAWN BY PH
CHECKED	#	APPROVED #
DATE	06.06.30	TITLE SADDLE
COPYRIGHT © 2008 BY DART AEROSPACE LTD.		DART AEROSPACE LTD. WARRICKBURT, ONTARIO, CANADA
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.		REV. C D3500 SHEET 1 OF 1 SCALE 2:3

NO 41555
WORK ORDER
SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE

1.698

21 - .065

DART AEROSPACE LTD		Work Order:	41555
Description: Saddle		Part Number:	D3500-1
Inspection Dwg: D3500	Rev: C	Page 1 of 1	

				Recorded Actual Dimensions					
Dim	Min	Max	Go/No Go Gauge	1	2	3	4	By	Date
A	0.483	0.490			1.85	0.485	0.487		
B	1.175	1.185			1.180	1.180	1.180		
C	3.145	3.155			3.150	3.150	3.150		
D	1.175	1.185			1.180	1.180	1.180		
E	0.365	0.385			0.375	0.375	0.375		
F	0.490	0.510			0.491	0.491	0.491		
H	R.470	R.530			0.525	0.525	0.525		
I	R1.575	R1.595			1.586	1.586	1.586		
J	0.240	0.260 *			0.242	0.242	0.242		
K	0.490	0.510			0.501	0.501	0.501		
L	3.590	3.650			3.650	3.650	3.650		
M	0.315	0.320			0.319	0.319	0.319		
N	0.256	0.262			0.258	0.258	0.259		
O	6.500	6.520			6.512	6.512	6.512		
P	5.990	6.010			6.001	6.001	6.001		
Q	2.820	2.830			2.825	2.825	2.825		
R	2.495	2.505			2.500	2.500	2.500		
S	2.245	2.255			2.250	2.250	2.250		
T	1.120	1.130			1.125	1.125	1.125		
U	0.540	0.560			0.550	0.550	0.550		
V	0.793	0.803			0.797	0.797	0.798		
W	R.240	R.260			0.250	0.250	0.250		
X	0.040	0.060			0.058	0.058	0.058		
Y	0.100	0.120			0.110	0.110	0.105		
AA	R1.125	R1.145		1.134	1.135	1.135	1.136		
AB	R.490	R.510			0.500	0.500	0.500		
AC	0.615	0.635			0.635	0.635	0.635		
AD	0.240	0.260			0.253	0.253	0.253		
AE	1.810	1.830			1.819	1.819	1.820		
AF	0.240	0.260			0.250	0.250	0.250		
AG	0.140	0.160			0.149	0.149	0.149		
AH	0.140	0.160			0.153	0.153	0.153		
AI	0.140	0.160 x			0.146	0.146	0.148		
Accept/Reject				Reject					

Measured by:	JL
Date:	08/09/17

Audited by:	gnd
Date:	08/09/19

Rev	Date	Change	Revised by	Approved
A	06.09.26	New Issue	EC/KJ	

11/10/1910
11/11/1910
11/12/1910
11/13/1910
11/14/1910
11/15/1910
11/16/1910
11/17/1910
11/18/1910
11/19/1910
11/20/1910
11/21/1910
11/22/1910
11/23/1910
11/24/1910
11/25/1910
11/26/1910
11/27/1910
11/28/1910
11/29/1910
11/30/1910

1/2

DART AEROSPACE LTD		Work Order:	41555
Description: Saddle		Part Number:	D3500-1
Inspection Dwg: D3500		Rev: C	Page 1 of 1

				Recorded Actual Dimensions					
Dim	Min	Max	Go/No Go Gauge	5	6	7	8	By	Date
A	0.483	0.490		0.4865	0.4865	0.4865	0.487		
B	1.175	1.185		1.180	1.180	1.180	1.180		
C	3.145	3.155		3.150	3.150	3.150	3.150		
D	1.175	1.185		1.180	1.180	1.180	1.180		
E	0.365	0.385		0.375	0.375	0.375	0.375		
F	0.490	0.510		0.500	0.500	0.500	0.500		
H	R.470	R.530		0.500	0.500	0.500	0.500		
I	R1.575	R1.595		1.585	1.5885	1.5885	1.5865		
J	0.240	0.260		0.250	0.250	0.242	0.241		
K	0.490	0.510		0.500	0.500	0.500	0.500		
L	3.590	3.650		3.620	3.620	3.620	3.620		
M	0.315	0.320		0.320	0.320	0.320	0.320		
N	0.256	0.262		0.2595	0.2595	0.2595	0.2595		
O	6.500	6.520		6.511	6.511	6.511	6.511		
P	5.990	6.010		6.001	6.001	6.001	6.001		
Q	2.820	2.830		2.825	2.825	2.825	2.825		
R	2.495	2.505		2.500	2.500	2.500	2.500		
S	2.245	2.255		2.250	2.250	2.250	2.250		
T	1.120	1.130		1.125	1.125	1.125	1.125		
U	0.540	0.560		0.546	0.546	0.546	0.547		
V	0.793	0.803		0.798	0.798	0.798	0.798		
W	R.240	R.260		0.250	0.250	0.250	0.250		
X	0.040	0.060		0.050	0.050	0.050	0.055		
Y	0.100	0.120		0.105	0.105	0.105	0.105		
AA	R1.125	R1.145		1.135	1.135	1.1375	1.138		
AB	R.490	R.510		0.500	0.500	0.500	0.500		
AC	0.615	0.635		0.625	0.625	0.625	0.625		
AD	0.240	0.260		0.250	0.250	0.255	0.253		
AE	1.810	1.830		1.820	1.820	1.820	1.820		
AF	0.240	0.260		0.251	0.251	0.251	0.251		
AG	0.140	0.160		0.151	0.151	0.151	0.150		
AH	0.140	0.160		0.150	0.150	0.150	0.150		
AI	0.140	0.160		0.150	0.150	0.150	0.150		
Accept/Reject									

Measured by:	DTP
Date:	08/09/18

Audited by:	gm
Date:	08/09/19

Rev	Date	Change	Revised by	Approved
A	06.09.26	New Issue	EC/KJ	

DART AEROSPACE LTD		Work Order:	41555
Description: Saddle		Part Number:	D3500-1
Inspection Dwg: D3500		Rev: C	Page 1 of 1

				Recorded Actual Dimensions					
Dim	Min	Max	Go/No Go Gauge	13	14	15	4	By	Date
A	0.483	0.490		0.487	0.487	0.487			
B	1.175	1.185		1.179	1.180	1.180			
C	3.145	3.155		3.151	3.150	3.150			
D	1.175	1.185		1.180	1.178	1.180			
E	0.365	0.385		0.375	0.375	0.375			
F	0.490	0.510		0.500	0.501	0.501			
H	R.470	R.530							
I	R1.575	R1.595		1.591	1.5855	1.5905			
J	0.240	0.260		0.242	0.2425	0.240			
K	0.490	0.510		0.500	0.498	0.499			
L	3.590	3.650		3.620	3.620	3.620			
M	0.315	0.320		0.320	0.320	0.320			
N	0.256	0.262		0.259	0.259	0.259			
O	6.500	6.520		6.510	6.511	6.511			
P	5.990	6.010		6.002	6.002	6.002			
Q	2.820	2.830		2.824	2.825	2.825			
R	2.495	2.505		2.500	2.500	2.500			
S	2.245	2.255		2.248	2.250	2.250			
T	1.120	1.130		1.125	1.125	1.125			
U	0.540	0.560		0.546	0.546	0.546			
V	0.793	0.803		0.798	0.798	0.798			
W	R.240	R.260		0.250	0.250	0.250			
X	0.040	0.060		0.055	0.055	0.055			
Y	0.100	0.120		0.105	0.105	0.105			
AA	R1.125	R1.145		1.1365	1.138	1.1355			
AB	R.490	R.510		0.500	0.500	0.500			
AC	0.615	0.635		0.625	0.625	0.625			
AD	0.240	0.260		0.256	0.256	0.25			
AE	1.810	1.830		1.820	1.820	1.820			
AF	0.240	0.260		0.253	0.253	0.253			
AG	0.140	0.160		0.154	0.154	0.153			
AH	0.140	0.160		0.150	0.150	0.150			
AI	0.140	0.160		0.150	0.150	0.150			
Accept/Reject									

Measured by:	DAP
Date:	08/09/19

Audited by:	ml
Date:	08/09/19

Rev	Date	Change	Revised by	Approved
A	06.09.26	New Issue	EC/KJ	ml

Chris Provencal

From: David Shepherd [dshepherd@dartaero.com]
Sent: September 17, 2008 5:19 PM
To: 'Chris Provencal'
Subject: RE: NCR D3500-1

Agree. Scrap part.

David

-----Original Message-----

From: Chris Provencal [mailto:cprovencal@dartaero.com]
Sent: Wednesday, September 17, 2008 2:15 PM
To: 'David Shepherd'
Subject: NCR D3500-1

David,

Qty(1) D3500-1 Saddle (350 saddle): the saddle-to-skidtube bore is over tol (by 0.003"). The wall in that area is in tol (min 0.140" measured, dwg dim is 0.150 nom). However the thickness at the skidtube holes is 0.235" (dwg 0.250" nom), under tol by 0.005". I have no SR to substantiate the strength (was done by test), therefore I think it should be scrapped. Do you concur?

-Chris

No virus found in this incoming message.

Checked by AVG.

Version: 7.5.524 / Virus Database: 270.6.21/1676 - Release Date: 9/17/2008
9:33 AM

No virus found in this outgoing message.

Checked by AVG.

Version: 7.5.524 / Virus Database: 270.6.21/1676 - Release Date: 9/17/2008
9:33 AM